

# Program Endorsement Brief

**HORTICULTURE IN THE NORTH/FAR NORTH**

**North/Far North Center of Excellence, February 2020**

## Introduction

This report provides an overview of the labor market demand and community college supply for occupations related to horticulture.

The data in this report provides an overview of the employment demand, wages, real-time job postings, and an analysis of related, existing community college program awards and student data across North/Far North subregions: the 7-county North and the 15-county Far North.

Key findings include:

- North region horticulture jobs are projected to grow by 5.3%, adding 1,214 jobs over the next five years.
- Horticulture jobs are projected to have 3,266 annual openings over the next five years.
- Median hourly wages are above the living wage threshold for a one-adult household in the North (Greater Sacramento) region.
- Existing workers in related occupations typically hold a high school diploma or less. The typical entry-level education for the selected occupations is, at most, a high school diploma.
- Regional community colleges conferred an average of 50 awards per year over the last three years.

## Occupational Demand

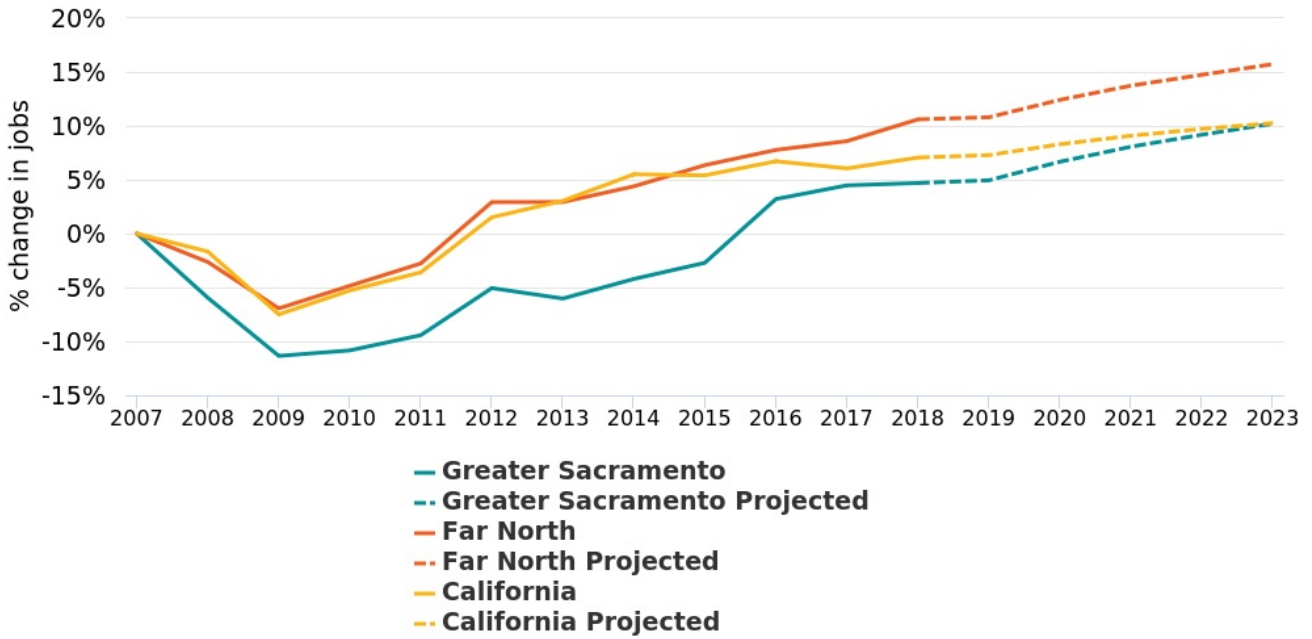
Four Standard Occupational Classification (SOC) codes were analyzed concerning the proposed program. Exhibit 1 summarizes job trends for the selected SOC codes in Greater Sacramento, the Far North, and California.

### Exhibit 1: Employment, projected occupational demand

Occupation	SOC	2007 Jobs	2018 Jobs	2023 Jobs	2018-2023 Jobs % Change	2018-2023 Annual Openings
Farmers, Ranchers, and Other Agricultural Managers	11-9013	2,354	2,041	2,004	-1.8%	159
Landscaping and Groundskeeping Workers	37-3011	13,099	12,694	13,754	8.4%	1,769
Pesticide Handlers, Sprayers, and Applicators, Vegetation	37-3012	401	359	383	6.7%	49
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	45-2092	6,227	8,024	8,190	2.1%	1,289
<b>7-county Greater Sacramento region</b>	<b>TOTAL</b>	<b>22,081</b>	<b>23,118</b>	<b>24,332</b>	<b>5.3%</b>	<b>3,266</b>
Farmers, Ranchers, and Other Agricultural Managers	11-9013	3,272	2,991	3,009	0.6%	243
Landscaping and Groundskeeping Workers	37-3011	4,667	4,619	4,987	8.0%	641
Pesticide Handlers, Sprayers, and Applicators, Vegetation	37-3012	202	181	190	5.0%	24
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	45-2092	6,214	8,085	8,427	4.2%	1,322
<b>15-county Far North region</b>	<b>TOTAL</b>	<b>14,355</b>	<b>15,877</b>	<b>16,614</b>	<b>4.6%</b>	<b>2,230</b>
Farmers, Ranchers, and Other Agricultural Managers	11-9013	61,899	53,514	52,067	-2.7%	3,859
Landscaping and Groundskeeping Workers	37-3011	180,703	169,793	177,305	4.4%	20,383
Pesticide Handlers, Sprayers, and Applicators, Vegetation	37-3012	4,341	3,532	3,677	4.1%	423
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	45-2092	206,692	258,804	267,133	3.2%	39,569
<b>California</b>	<b>TOTAL</b>	<b>453,636</b>	<b>485,643</b>	<b>500,183</b>	<b>3.0%</b>	<b>64,234</b>

Exhibit 2 shows the percentage change in the number of jobs between 2007 through 2018 and occupational projections from 2018 through 2023. The rate of change is indexed to the total number of jobs in 2007 as the base year and compares Greater Sacramento, the Far North, and California.

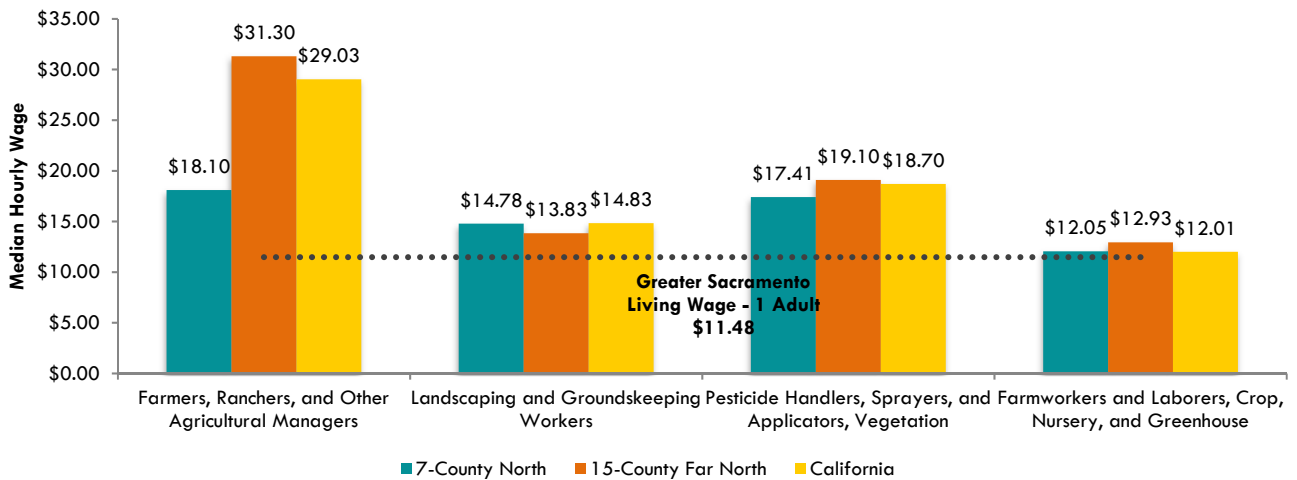
**Exhibit 2: Rate of change for selected occupations**



**Occupational Wages**

Exhibit 3 displays the median hourly wages for selected occupations in the study regions compared to the median living wage for a one-adult household in the Greater Sacramento (North) region.

**Exhibit 3: Average hourly wages for selected occupations**



## Job Postings

This section summarizes job postings data for the North/Far North region. Jobs postings come from Burning Glass Labor Insights, a real-time, online, labor market information tool. Burning Glass identified 987 online job listings in the 22-county North/Far North region, from February 1, 2019, to January 31, 2020.

Exhibit 4 shows the top job titles for advertised positions in related job postings. All 987 job postings included a job title.

### Exhibit 4: Top job titles in related job postings

Job Title	Job Postings	Share
Groundskeeper	296	30%
Landscape Laborer	66	7%
Irrigation Technician	59	6%
Landscaper	58	6%
Groundsman	33	3%
Landscape Foreman	24	2%
Maintenance Worker	22	2%
Landscaping Crew Leader	14	1%
Gardener	14	1%

Exhibit 5 shows the top employers in related job postings. Eighty-three percent of job postings (n=823) included the employer's name.

### Exhibit 5: Top employers in related job postings

Employer	Job Postings	Share
Brightview	52	6%
Fpi Management Incorporated	24	3%
Brightview Landscapes, Llc	20	2%
City Wide Property Services Inc	18	2%
Purescapes Llc	17	2%
Zukes Landscape Incorporated	14	2%
Fpi Management	14	2%
Coast Landscape Management	12	1%
Crossroads Sacramento	11	1%
Vail Resorts Management Company	10	1%

Exhibit 6 shows the top certifications listed in related job postings in the study region. Please note that 48% of the job postings (489 of the 987 postings) were excluded because they did not include certifications. As a result, exhibit 6 may not be representative of the full sample.

### Exhibit 6: Top certifications in related job postings

Certification	Job Postings	Share
CA Driver's License	489	96%
Pest Control Applicator License	35	7%

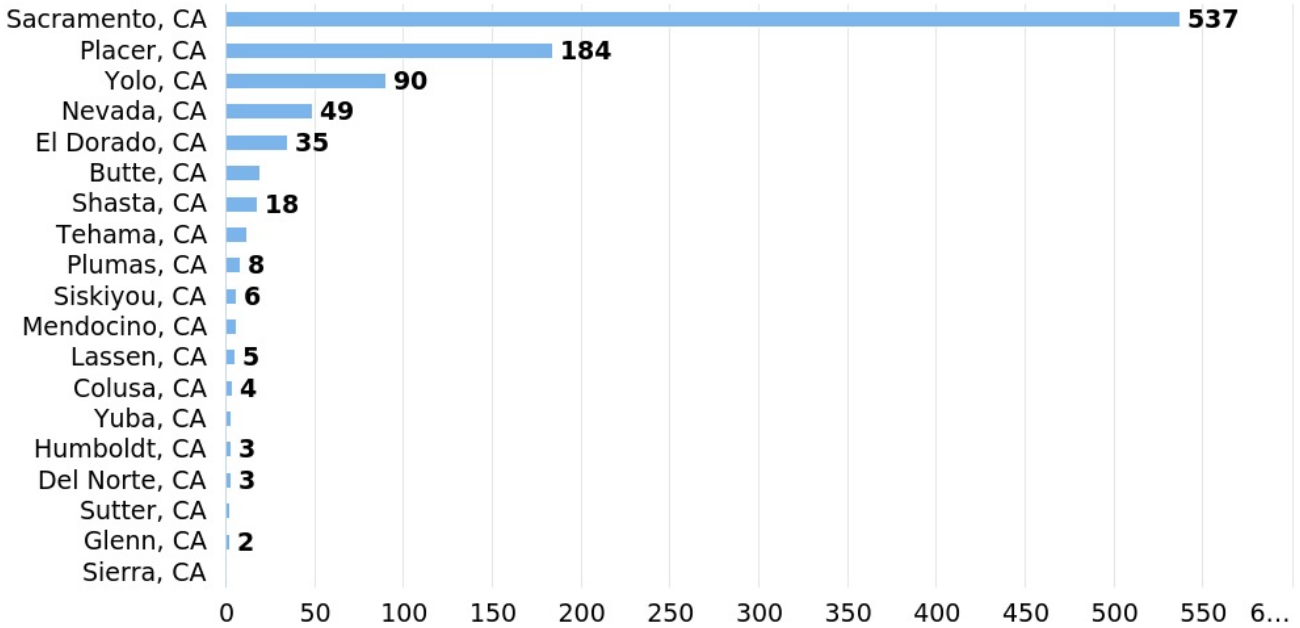
Exhibit 7 shows the top skills listed in related job postings in the study region. Sixty-six percent (n=650) of the job postings included at least three skills in the advertisement.

**Exhibit 7: Top skills in related job postings**

Specialized Skills	Job Postings	Share
Repair	231	36%
Customer Service	139	21%
Cleaning	105	16%
Irrigation	99	15%
Irrigation Systems	98	15%
Debris and Litter Control	94	14%
Hand Tools	93	14%
Scheduling	88	14%
Power Tools	75	12%
Fertilizers	74	11%
Foundational Skills	Job Postings	Share
Physical Abilities	215	33%
English	198	30%
Communication Skills	126	19%
Detail-Oriented	126	19%
Computer Literacy	106	16%
Spanish	98	15%
Bilingual	96	15%
Building Effective Relationships	63	10%
Teamwork / Collaboration	49	8%
Organizational Skills	44	7%
Software Skills	Job Postings	Share
Microsoft Excel	26	4%
Microsoft Office	21	3%
Microsoft Word	14	2%
Caching	12	2%
DOM	7	1%
Google Docs	7	1%
Microsoft PowerPoint	7	1%
SAS	4	1%

Exhibit 8 shows the volume of related job postings by the location of the employer. All job postings included a location.

**Exhibit 8: Top locations, by county, in related job postings**



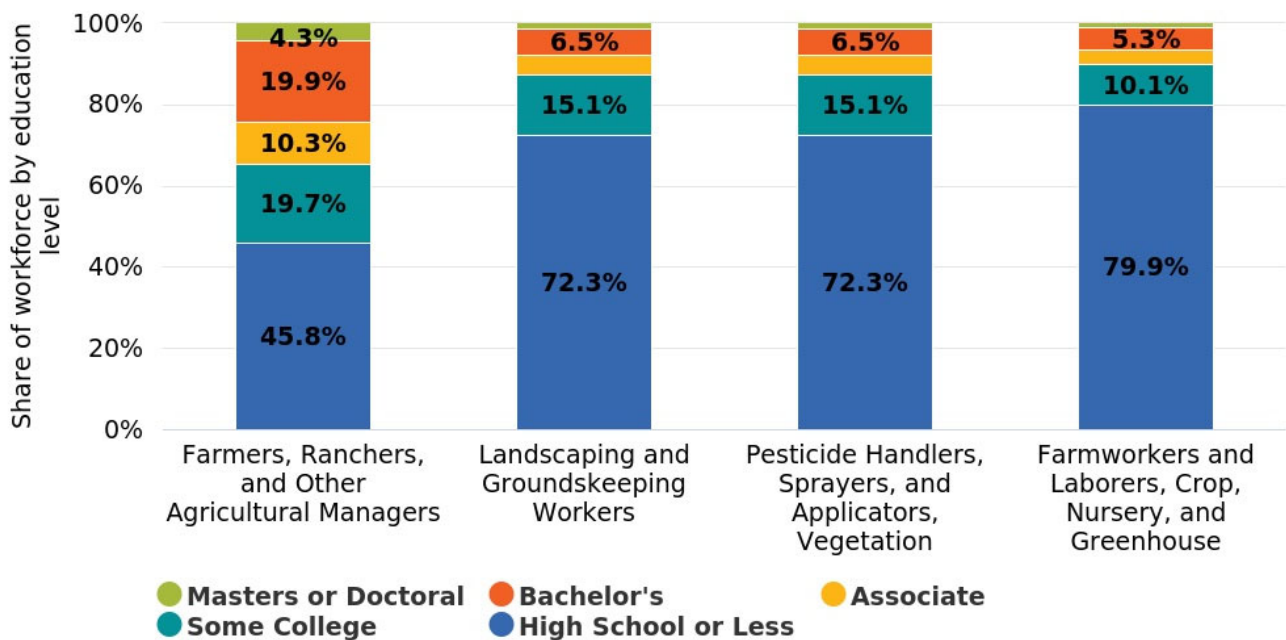
## Educational Attainment

Exhibit 9 shows the typical education requirements, work experience, and on-the-job training requirements for entry-level positions in the selected occupations.

Occupation	SOC	Typical Entry-level Education	Work Experienced Required	Typical On-the-job Training
Farmers, Ranchers, and Other Agricultural Managers	11-9013	High school diploma or equivalent	Five years or more	None
Landscaping and Groundskeeping Workers	37-3011	No formal educational credential	None	Short-term on-the-job training
Pesticide Handlers, Sprayers, and Applicators, Vegetation	37-3012	High school diploma or equivalent	None	Moderate-term on-the-job training
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	45-2092	No formal educational credential	None	Short-term on-the-job training

The U.S. Census Bureau and Bureau of Labor Statistics collects data on the educational attainment of the current workforce at the national level. Exhibit 10 shows the share of the current national workforce by education levels in the occupations studied.

**Exhibit 10: Educational attainment for selected occupations**





## Related Program Awards

Exhibit 9 shows the 3-year average number of community college certificates and degrees conferred in selected programs. The programs analyzed include the following:

- Horticulture (0109.00)
- Landscape Design and Maintenance (0109.10)

In the last three years, the community colleges conferred an average of 50 awards.

### Exhibit 9: Three-year average certificates and degrees awarded in the North/Far North (15 colleges) region, 2016-2019

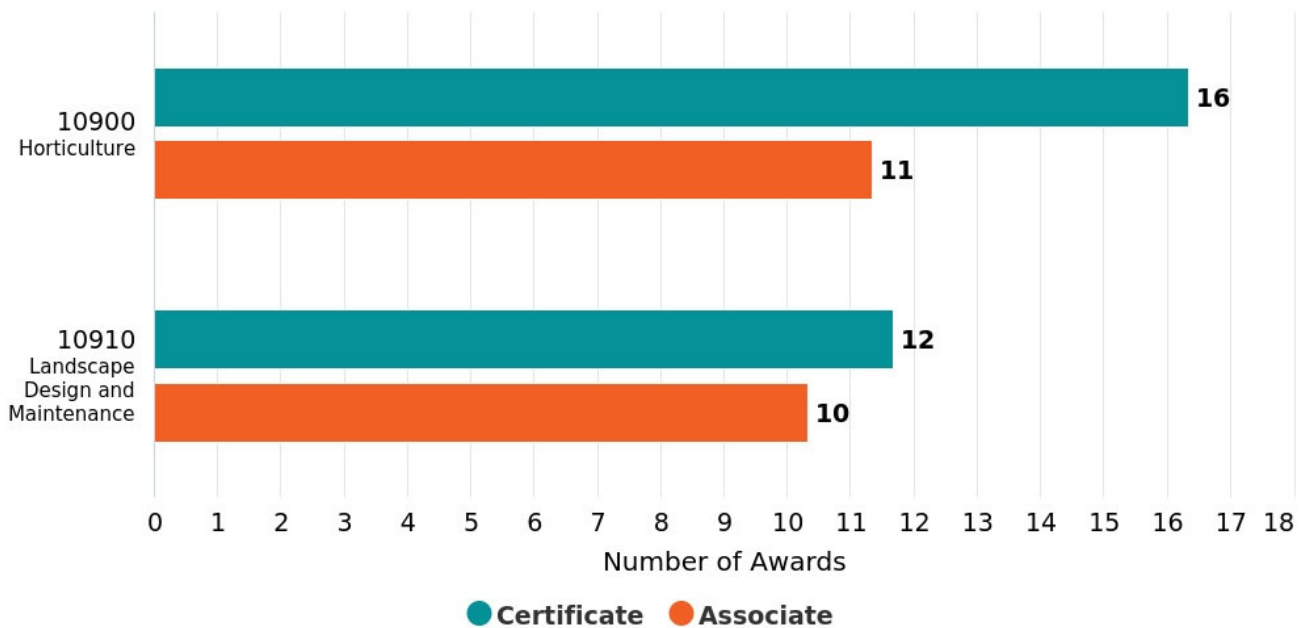
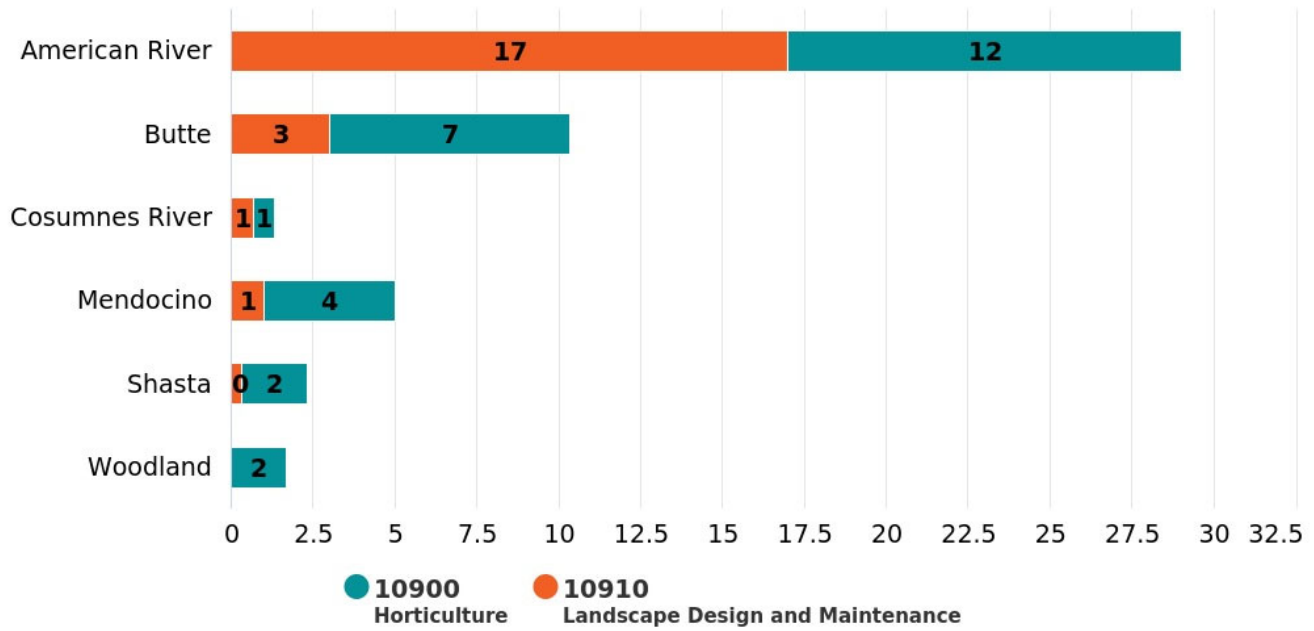


Exhibit 10 displays detailed program data for the average number of certificates and degrees awarded in the most recent three academic years.

**Exhibit 10: Certificates and associate degrees awarded in the North/Far North (15 colleges) region, annual counts, 2016-2019**



## Findings

- Horticulture jobs grew by 5% in the North (Greater Sacramento) region over the last ten years. Horticulture jobs are projected to grow by 5.3%, adding 1,214 jobs over the next five years.
- Horticulture jobs are projected to have 3,266 annual openings over the next five years.
- Median hourly wages are above the living wage threshold for a one-adult household in the North (Greater Sacramento) region. Median wages range from \$12 per hour to \$18 per hour for the occupations studied.
- Existing workers in related occupations typically hold a high school diploma or less. The typical entry-level education for the selected occupations is, at most, a high school diploma.
- Regional community colleges conferred an average of 50 awards per year over the last three years.

## Recommendations

- There will be an estimated 3,266 annual openings for horticulture jobs through 2023. The number of related awards on average from the region's community colleges is 50.
- Simple gap analysis indicates that there is significant demand for the studied occupations.
- The COE recommends moving forward with the program.

### COE RECOMMENDATION

- Move forward with the program
- Program is not recommended
- Additional information needed

## APPENDIX A: DATA SOURCES

Sources used for data analysis purposes in this report include:

- Emsi. <https://www.economicmodeling.com/>. EMSI occupational employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors)
- Management Information Systems (MIS) Data Mart. California Community Colleges Chancellor's Office. <https://datamart.cccco.edu/>
- Burning Glass Technologies, "Labor Insight Real-Time Labor Market Information Tool," <http://www.burningglass.com>, 2020.
- Educational Attainment for Workers 25 Years and Older by Detailed Occupation, 2016-2017. Bureau of Labor Statistics. <https://www.bls.gov/emp/tables/educational-attainment.htm#>
- Management Information Systems (MIS) Data Mart. California Community Colleges Chancellor's Office. <https://datamart.cccco.edu/>